



Answer Sheet

Paper Name: Math-Algebra

Paper ID: CUSTOM-MA-C496718A4C

Full Name:



**YOU MUST ANSWER ON THIS SHEET. TAKE A PICTURE USING THE EXAM HAPPY APP
AFTERWARDS TO MARK YOUR WORK.**

How to answer:



A



B



C



D



E

How not to answer:



A



B



C



D



E

Use the **free Exam Happy app** to **view the average** for this paper and learn from **video solutions**

1	☐	☐	☐	☐	☐
	A	B	C	D	E
2	☐	☐	☐	☐	☐
	A	B	C	D	E
3	☐	☐	☐	☐	☐
	A	B	C	D	E
4	☐	☐	☐	☐	☐
	A	B	C	D	E
5	☐	☐	☐	☐	☐
	A	B	C	D	E
6	☐	☐	☐	☐	☐
	A	B	C	D	E
7	☐	☐	☐	☐	☐
	A	B	C	D	E
8	☐	☐	☐	☐	☐
	A	B	C	D	E
9	☐	☐	☐	☐	☐
	A	B	C	D	E
10	☐	☐	☐	☐	☐
	A	B	C	D	E

11	☐	☐	☐	☐	☐
	A	B	C	D	E
12	☐	☐	☐	☐	☐
	A	B	C	D	E
13	☐	☐	☐	☐	☐
	A	B	C	D	E
14	☐	☐	☐	☐	☐
	A	B	C	D	E
15	☐	☐	☐	☐	☐
	A	B	C	D	E
16	☐	☐	☐	☐	☐
	A	B	C	D	E
17	☐	☐	☐	☐	☐
	A	B	C	D	E
18	☐	☐	☐	☐	☐
	A	B	C	D	E
19	☐	☐	☐	☐	☐
	A	B	C	D	E
20	☐	☐	☐	☐	☐
	A	B	C	D	E

- 1.** The sum of two numbers is equal to 25. The difference between these numbers is 11.

What is the larger of these two numbers?

A 7 **B** 18 **C** 15 **D** 19 **E** 22

- 2.** London Zoo is celebrating the birth of a baby elephant! 3 years ago, the baby's elephant's older sister was 4 years old. Their mother is 4 times older than the older sister is now.

How old is the baby elephant's mother?

A 21 **B** 14 **C** 12 **D** 28 **E** 16

- 3.** What is the missing number in the following table?

x	$3x + 3$
1	6
3	12
10	?

A 39 **B** 18 **C** 21 **D** 24 **E** 33

4. What is the next number in the pattern?

$n + 2, 2n + 6, 3n + 10, 4n + 14, \underline{\hspace{2cm}}$

- A $5n + 15$
- B $5n + 16$
- C $5n + 17$
- D $5n + 18$
- E $5n + 19$

5. What is the value of the following expression when x is equal to 4?

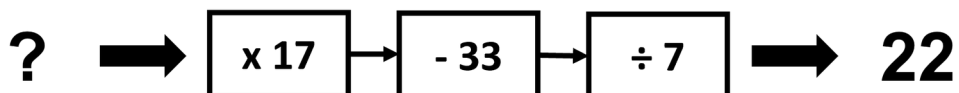
$$8x + 2$$

- A 26
- B 86
- C 24
- D 34
- E 18

6. If $p = 2$ and $q = 3$, find the value of $(2p + 3q) \times p$.

- A 13
- B 24
- C 39
- D 26
- E 38

7. Gina created a number machine which takes in a number and outputs an answer after doing some calculations. She puts in a number and the number 22 is outputted.



What number did Gina put into the number machine?

- A 13
- B 11
- C 14
- D 21
- E 8

- 8.** The cost of 2 pens and 5 pencils is 18p.
The cost of 2 pens and 2 pencils is 12p.

What is the cost of one pen and one pencil?

A 2p **B** 4p **C** 6p **D** 3p **E** 5p

- 9.** Isabel is planning her daughter Maria's 25th birthday party well in advance. Currently, Maria is 23 years old, and Isabel is twice her age.

How old will Isabel be when Maria is 25?

A 47 **B** 48 **C** 50 **D** 49 **E** 46

- 10.** Four consecutive numbers add up to 410.

What is the largest of the four numbers?

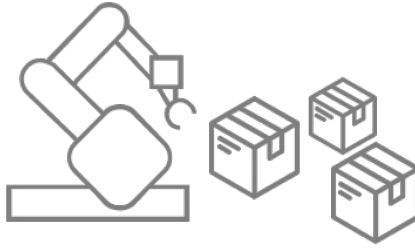
A 101 **B** 104 **C** 103 **D** 108 **E** 109

- 11.** $24 = 2^a \times 3^b$ and $36 = 2^c \times 3^d$

What is the value of $a + b + c + d$?

A 10 **B** 7 **C** 12 **D** 4 **E** 8

- 12.** 5 people can pack 35 boxes per hour at a warehouse.
A robot can pack 40 boxes per hour at the same warehouse.



How many more boxes do 20 robots pack than 100 people in 2 hours?

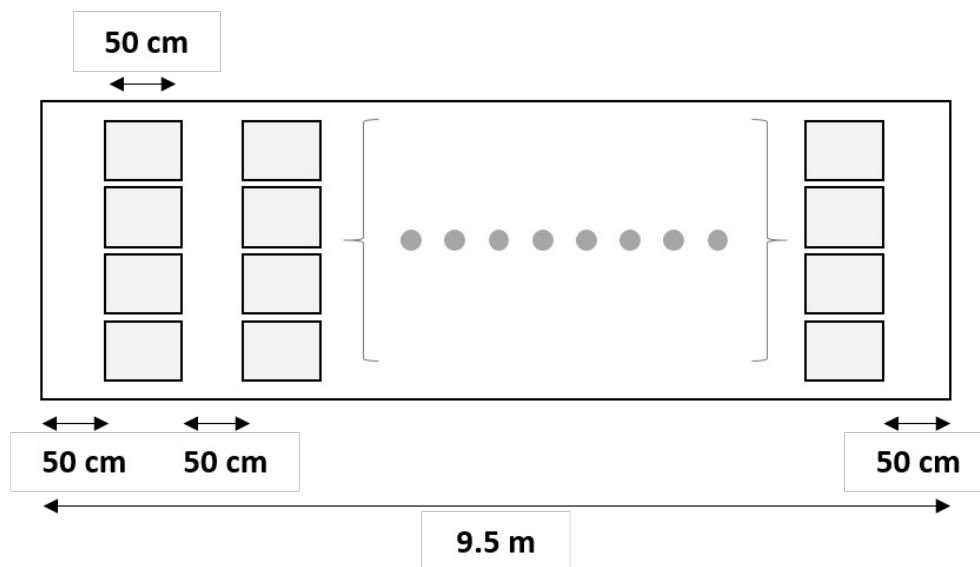
- A** 600 **B** 400 **C** 100 **D** 150 **E** 200
- 13.** Two apples and two bananas cost £2. Four apples and two bananas cost £2.40. How much does one banana cost?
- A** £0.20 **B** £0.80 **C** £0.40 **D** £0.30 **E** £0.50

- 14.** In 10 years' time, Albert will be 25 years old.

How old was he 3 years ago?

- A** 32 **B** 12 **C** 15 **D** 18 **E** 20

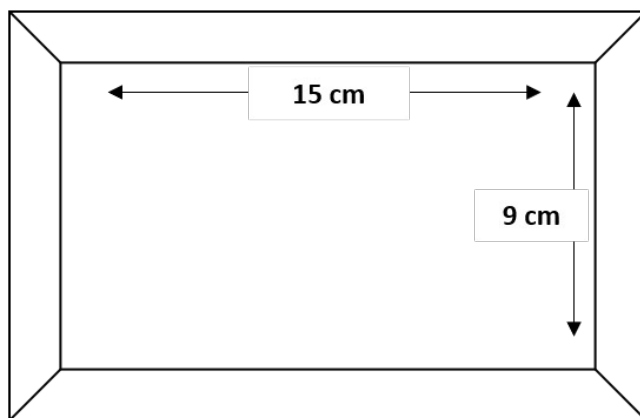
- 15.** The diagram below represents a 9.5 m long train carriage. There are rows of 4 seats along the length of the train carriage which are 50 cm wide, and there is a 50 cm gap between each row. There is also a 50 cm space at the front and back of the carriage.



How many seats are on the train carriage?

- A 12 B 9 C 32 D 36 E 40

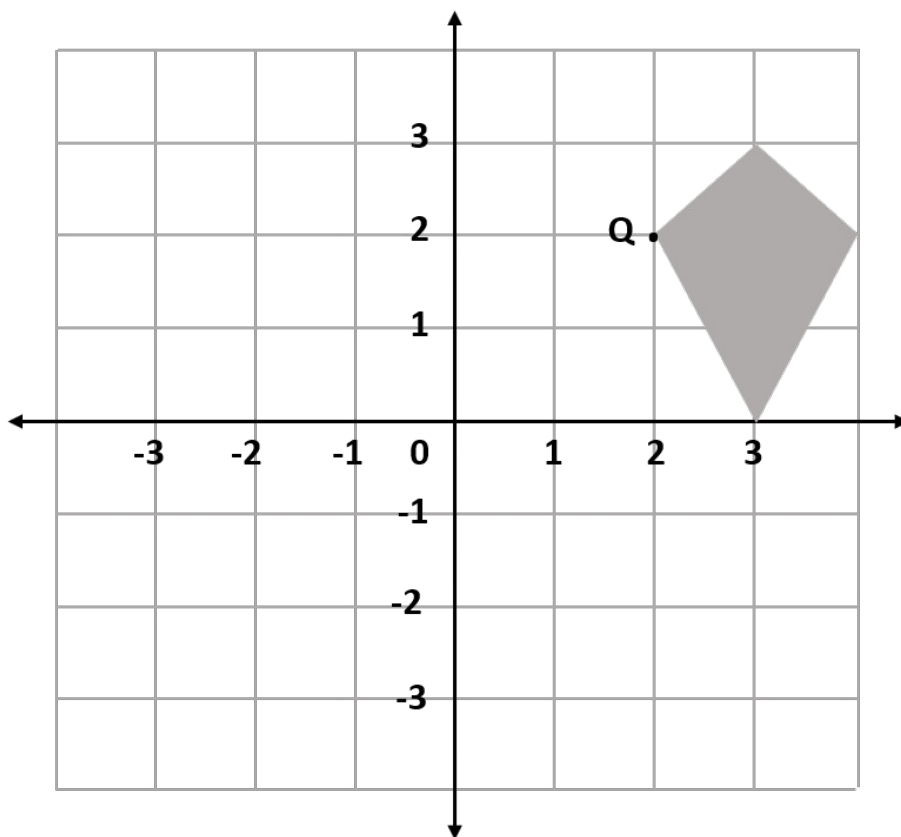
- 16.** Matthew is making a fence to go around his Lego structure. He's making the fence out of large matchsticks and wants to leave a 2.5 cm gap between his Lego and the fence. Each matchstick is 2 cm wide. The Lego structure is 15 cm long, and 9 cm wide.



How many matchsticks will Matthew need to be able to complete his fence?

- A** 29 **B** 58 **C** 68 **D** 48 **E** 34

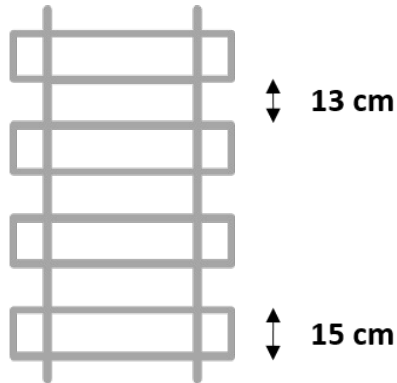
- 17.** The kite depicted below is reflected in the Y axis on the grid.



What will be the new coordinates of point Q?

- A** (2, 0) **B** (2, 2) **C** (2, -2) **D** (-2, 2) **E** (-4, 2)
- 18.** How many toothpicks does Jeremy use to make his honeycomb shape if 25% of them broke whilst making it?
- A** 40 **B** 36 **C** 42 **D** 84 **E** 64

- 19.** Rail tracks are made of wooden boards which are 15 cm wide, and spaced 13 cm apart as follows:



How long is a length of track made up of 30 wooden boards?

- A** 8.27 m **B** 7.50 m **C** 6.67 m **D** 8.58 m **E** 8.88 m